### **ENVIRONMENTAL CHEMISTS**

Date of Report: June 18, 1997 Date Received: June 12, 1997

Project: Metro Composite, PO #M57499 Date Samples Extracted: June 12, 1997 Date Extracts Analyzed: June 16, 1997

## RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

## Samples Processed Using Method 3005A Results Reported as µg/L (ppb)

Sample ID	<u>Chromiun</u>	<u>Copper</u>	<u>Nickel</u>	Zinc
M57499	0.28	0.24	0.28	<0.05
Method Blank	<0.05	< 0.05	<0.05	<0.05

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Date of Report: June 18, 1997 Date Received: June 12, 1997

Project: Metro Composite, PO #M57499

## QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 78737 (Duplicate)

	Tia, Tibio a			Relative	
	Reporting	Sample	Duplicate	Percent	Acceptance
Analyte:	Units	Result	Result	Difference	Criteria
Chromium	mg/L (ppm)	0.28	0.28	0	0-20
Copper	mg/L (ppm)	0.24	0.24	0 a	0-20
Nickel	mg/L (ppm)	0.28	0.28	0	0-20
Zinc	mg/L (ppm)	< 0.05	< 0.05	nm	0-20

Laboratory Code: 78737 (Matrix Spike)

							Relative
	Reporting	Spike	Sample	% I	Recovery	Acceptance	Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	0.28	95	95	80-120	0
Copper	mg/L (ppm)	5	0.24	92	90	80-120	2
Nickel	mg/L (ppm)	10	0.28	94	94	80-120	0
Zinc	mg/L (ppm)		< 0.05	94	97	80-120	3

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	Acceptance Criteria	
Chromium	mg/L (ppm)	5	101	80-120	
Copper	mg/L (ppm)	5	95	80-120	
Nickel	mg/L (ppm)	10	101	80-120	
Zinc	mg/L (ppm)	5	103	80-120	

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

RIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119 (206) 285-8282

# SAMPLE CHAIN OF CUSTODY

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#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Beth Albertson, M.S. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. Melanie Kirol, B.S. June 18, 1997 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

### INVOICE # 97ACU0618-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Composite, PO #M57499: Results of testing requested by Gerry Thompson, Project Manager for material submitted on June 12, 1997.

FEDERAL TAX ID # (b) (6)

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Beth Albertson, M.S. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. Melanie Kirol, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

June 18, 1997

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 12, 1997 from your Metro Composite, PO #M57499 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson Chemist

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Enclosures ACU0618R.DOC